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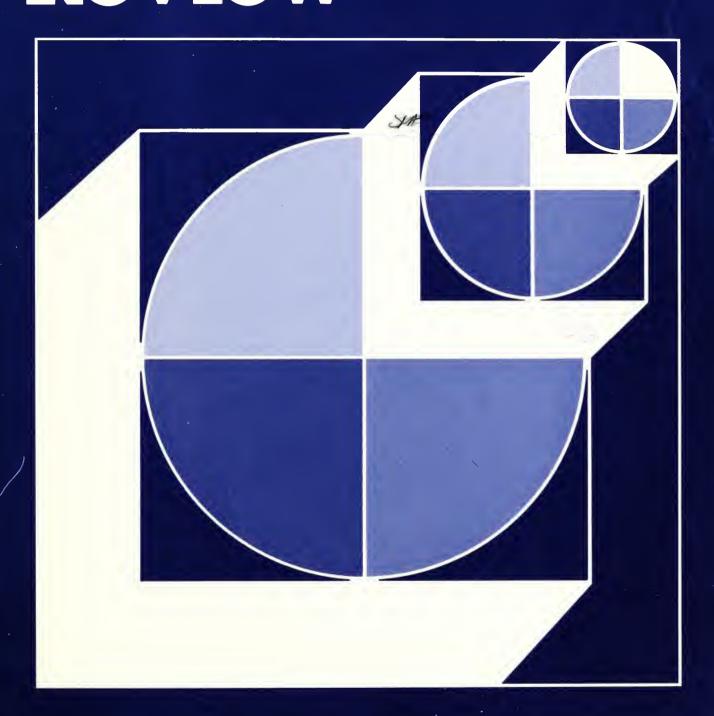
# Family Economics Review

1990

Vol. 3 No. 3

United States
Department of
Agriculture

Agricultural Research Service







## Family Economics Review

Vol. 3 No. 3

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Family Economics Review is written and published each quarter by the Family Economics Research Group, Beltsville Human Nutrition Research Center, Agricultural Research Service, United States Department of Agriculture, Washington, DC.

The Secretary of Agriculture has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this Department.

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September 1990

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# Expenditures on a Child by Husband-Wife Families

By Mark Lino Consumer Economist Family Economics Research Group

Child-rearing expenses consume a large proportion of a family's income. Using data from the 1987 Consumer Expenditure Survey, this study examines expenditures on a child in a husbandwife household with two children. Estimates are provided for major components of the budget by age of child, family income level, and region of residence. Overall expenses on a child increase with the age of the child and family income. Housing comprises the largest share of total expenditures on a child regardless of the child's age or household income. Families in the urban West generally have the highest child-rearing expenses, and families in rural areas incur the lowest. Economies of scale are achieved with three or more children.

The Family Economics Research Group of the U.S. Department of Agriculture (USDA) has provided estimates of child-rearing expenses for the past two decades (3). The estimates reflect expenditures by husband-wife families<sup>1</sup> on a child from birth through age 17. Lawyers and judges use them in determining child support awards in divorce cases and cases involving the wrongful death of a parent. Policymakers use the estimates in determining payments for the support of children in foster families. Financial planners and consumer educators use them to help people assess their life insurance needs as well as provide estimates of expenses to people who are considering parenthood.

Although estimates were updated semiannually using the Consumer Price Index (CPI) to reflect price changes, the expenditure patterns of families with children have changed since the original estimates were produced. For example, the rise in the number of working mothers has resulted in families purchasing a different bundle of goods and services, such as food away from home and child care, than they did in the past.

This article presents new estimates on child-rearing expenses using a more recent expenditure base, the 1987 Consumer Expenditure Survey. Family expenditures on a child (updated to 1989 dollars) are estimated for three income groups of households. To partially adjust for price differentials and varying patterns of expenditures, estimates are provided for urban areas<sup>2</sup> in four regions (West, Northeast, South, and Midwest) and rural areas as well as for the United States overall. Expenditures on a child are estimated for the major budgetary components: housing; food; transportation; clothing; health care; and education, child care, and other miscellaneous goods and services (see box on p. 3 for description of each component).

#### Methodology

#### Source of Data

Data used to estimate expenditures on a child are from the 1987 Consumer Expenditure Survey (CEX). This survey is the most comprehensive source of household expenditure information available at the national level. Administered by the Bureau of Labor Statistics, U.S. Department of Labor, the CEX has been ongoing since 1980 and collects information on consumer unit characteristics and income as well as expenditures. About 5,000 consumer units are interviewed each quarter over a 1-year period. Each quarter is deemed an independent sample by the Bureau of Labor Statistics, bringing the total number of households in the 1987 survey to approximately 20,000 consumer units.

From these households, husband and wife families with one or more children age 17 or under but no other persons present, and who were complete income reporters, were selected for the study. This sample was weighted using Bureau of Labor Statistics weighting methods to reflect the U.S. population. Quarterly expenditures were multiplied by four to provide annual estimates.

#### **Estimating Expenditures**

To estimate husband-wife household expenditures on a child, this study essentially followed the methodology used by the Family Economics Research Group in determining previous estimates. This approach estimates child-related and household expenditures for the various budgetary components and then assigns these expenditures to a child for child-specific expenditures or, for overall household expenditures, allocates a share to a child based on previous research or on a per capita basis.

The CEX collects overall household expenditure data for some budgetary components (housing, food, transportation, health care, and other miscellaneous goods and services) and child-related expenditure data for other components

<sup>&</sup>lt;sup>1</sup>For this study the terms consumer units, families, and households are used interchangeably.

<sup>&</sup>lt;sup>2</sup>Urban areas were defined as Metropolitan Statistical Areas (MSA's) and other places of 2,500 or more persons outside an MSA; rural areas were places of less than 2,500 persons outside an MSA.

(clothing, education, and child care). Multivariate analysis was used to estimate household and child-related expenditures, controlling for income level, family size, and age of the younger child so estimates could be made for families with these varying characteristics. The three income groups of households (1987 beforetax income under \$26,000, between \$26,000 and \$42,000, and over \$42,000) were determined by dividing the sample into equal thirds.

For each income level, the estimates were for husband and wife families with two children with the vounger child in one of six age categories (0-2, 3-5, 6-8, 9-11, 12-14, and 15-17). Households with four members (two children) were selected as the base since this was the average size of a family with children in 1987. The focus was on the younger child in a household since the older child was often over age 17. If the older child had been selected as the household member of interest, expenditures for some items would be higher or lower. (To adjust expenditures for the older child, see discussion on p. 9.) In addition, if a household with other than two children was selected as the base, expenditures would be different because of economies or diseconomies of scale. (To adjust expenditures for number of children, see discussion on p. 10.) Each expense was estimated separately, thereby assuming that each expenditure was made independently of the others. The specific function and how each budgetary expenditure was estimated in dollars is described in the box on p. 4.

Ordinary least squares analysis was used to estimate expenditures for housing, food, transportation, and other miscellaneous goods and services. Tobit analysis was used to estimate expenditures for health, children's clothing, and children's education and child care since over 10 percent of the sample reported zero expenses for these budgetary components. Because of these zero expenditures, tobit analysis yields more efficient estimates than

Housing expenses include shelter (mortgage interest; property taxes; rent; and maintenance, repairs, and insurance), utilities (gas, electricity, fuel, telephone, and water), and housefurnishings and equipment (furniture, floor coverings, major appliances, and small appliances).

Food expenses include food and nonalcoholic beverages purchased at grocery stores, convenience stores, and specialty stores; dining out at restaurants; and school meals.

Transportation expenses include the net outlay on purchase of new and used vehicles, vehicle finance charges, gasoline and motor oil, maintenance and repairs, insurance, and public transportation.

Clothing expenses include children's apparel items such as shirts, pants, dresses, and suits; footwear; and clothing services such as dry cleaning, alteration and repair, and storage.

Health care expenses include medical and dental services not covered by insurance, prescription drugs and medical supplies not covered by insurance, and health insurance premiums not paid by employer or other organization.

Education, child care, and other miscellaneous expenses include elementary and high school tuition, books and supplies; day care tuition and supplies; babysitting; and personal care items, entertainment, and reading.

ordinary least squares analysis. The procedure outlined by McDonald and Moffitt (8) was used to transform the tobit analysis estimates into dollars.

#### Allocating Expenditures Among Household Members

After the various overall household and child-related expenditures were estimated, these total amounts were allocated among the four family members (husband, wife, older child, and younger child). Since the estimated expenditures for children's clothing, education, and child care were only for children, this allocation was made by dividing these estimated expenditures by two (the number of children in the household).

CEX data on children's clothing expenditures were for children age 15 and under. For the estimates, therefore, it was assumed that the clothing expenditures of a 16- or 17-year-old were similar to those of a 15-year-old, and these older teenagers were assigned the expenditures of a 15-year-old. Also, expenditures for other clothing services, such as dry cleaning, were estimated

for the overall household and allocated on a per capita basis among household members.

Because the CEX did not collect expenditures on food and health care by family member, data from other Federal studies were used to apportion these budgetary components to a child by age. The 1977-78 National Food Consumption Survey conducted by the **Human Nutrition Information** Service (HNIS), USDA, collected data on food consumption by individual family members and the money value of food used at home by the household. Four food plans (11) were then developed from this information (thrifty, low-cost, moderate-cost, and liberal) and are updated in terms of prices every month using the CPI. Following established dietary standards, these plans estimate food expenditures for family members by age, sex, household size, and income level of the household.

Based on the 1987 plans, food budget shares, as a percentage of total food expenditures, were calculated for the younger child in a four-member household under

Using dummy independent variables, the specific function was:

$$Ei = a + b1Y2 + b2Y3 + c1HS1 + c2HS3 + d1CA2 + d2CA3 + d3CA4 + d4CA5 + d5CA6$$

where:

Ei = household expenditures on a particular budgetary component (housing, food, transportation, health care, children's clothing, children's education and child care, or other miscellaneous goods and services)

Y2 = 1 if household had a before-tax income between \$26,000 and \$42,000, 0 otherwise

Y3 = 1 if household had a before-tax income over \$42,000, 0 otherwise (the omitted category being household had a before-tax income under \$26,000)

HS1 = 1 if husband-wife household with one child, 0 otherwise

HS3 = 1 if husband-wife household with three or more children, 0 otherwise (the omitted category being a husband-wife household with two children)

CA2 = 1 if age of the younger child was 3-5, 0 otherwise

CA3 = 1 if age of the younger child was 6-8, 0 otherwise

CA4 = 1 if age of the younger child was 9-11, 0 otherwise

CA5 = 1 if age of the younger child was 12-14, 0 otherwise

CA6 = 1 if age of the younger child was 15-17, 0 otherwise (the omitted category being age of the younger child was 0-2)

For estimates that reflect the overall U.S., family expenditures on each budgetary component (Ei) were calculated by summing the coefficients for the appropriate income, household size, and age of the younger child. For example, expenditures for a household with a before-tax income under \$26,000, two children, and the younger child age 3-5 were calculated as Ei = a + d1CA2, whereas expenditures for a household with a before-tax income over \$42,000, two children, and the younger child age 15-17 were calculated as Ei = a + b2Y3 + d5CA6. For the regional estimates of family expenditures on children, multivariate analysis also was used. The specific equation was:

$$Ei = a + b1Y2 + b2Y3 + c1HS1 + c2HS3 + d1CA2 + d2CA3 + d3CA4 + d4CA5 + d5CA6 + e1NE + e2S + e3MW + e4W$$

where the variables Ei to CA6 are the same as before and the new variables:

NE = 1 if household resides in the urban Northeast, 0 otherwise

S = 1 if household resides in the urban South, 0 otherwise

MW = 1 if household resides in the urban Midwest, 0 otherwise

W = 1 if household resides in the urban West, 0 otherwise (the omitted category being a household resides in a rural area)

Family expenditures on each budgetary component (Ei) for the various regions were calculated by summing the coefficients for the appropriate income, household size, age of the younger child, and region. For example, expenditures for a household in the urban Northeast with a before-tax income between \$26,000 and \$42,000, four members, and the younger child age 6-8 were calculated as Ei = a + b1Y2 + d2CA3 + e1NE.

the low-cost, moderate-cost, and liberal food plans for the lowest-, middle-, and highest-income groups. It was assumed both parents were between 20 and 50 years old and the age spread between the younger and older child was 3 years. The food plans do not contain expenditures for a child under age 1, so these infants were assigned the same expenditure as a child age 1-2. Also, separate recommended food expenditures are given in the food plans for female and male children over age 12; these were averaged to determine food budget shares for these children.

Appropriate (for age of the child and income level of the household) food budget shares were then applied to the estimated household food expenditures to determine child-related food expenses. The calculated food budget shares as a percentage of total food expenditures for the younger child in a four-member household, by age of the child and income group, were:

	Inc	ome grou	р
Age of child	Lowest	Middle	Highest
	Pe	rcent shar	<u>e</u>
0-2	18	17	16
3 - 5	18	18	18
6-8	22	22	21
9 - 11	24	24	23
12 - 14	24	24	24
15 - 17	25	25	24

It should be noted that the income groups suggested by HNIS for the low-cost, moderate-cost, and liberal food plans correspond only in broadest terms to the three income groups used in this study. Table 1 on p. 10 shows the income ranges of the four food plans and those used in this study, updated to 1989 dollars using the CPI.

The 1980 National Medical Care Utilization and Expenditure Survey conducted by the Public Health Service, U.S. Department of Health and Human Services (HHS) (5), contains data on health care expenses by age of individual household members. From these figures, the

proportion of health care expenses attributable to the younger child in a four-member household was derived. These individual member shares for health care expenses then were applied to estimated household health care expenditures to determine child-related expenses. It was assumed that the ages of the parents were between 19 and 54, and the age spread between the younger and older child was 1-6 years. Applying these derived health care expense shares to total household health care expenditures for the three income groups in 1987 assumes these shares have not changed since 1980 and do not vary by income. Health care budget shares by age of the younger child in a family of four were 18 percent for a child age 0-5 and 19 percent for a child age 6-17.

Unlike food and health care, no authoritative base exists for allocating estimated household expenditures on housing, transportation, and other miscellaneous goods and services among individual household members. Previous estimates on child-rearing expenses by the Family Economics Research Group allocated these expenditures on a per capita basis. For a family with four members, each member was assumed to incur 25 percent of the expense for housing, transportation, and the category of other miscellaneous goods and services.

Other studies have used alternative methods for allocating household expenditures to a child (4,7,9,10). One approach is the marginal cost method that measures child-rearing expenditures as the difference in expenses between a couple with children and an equivalent childless couple.<sup>3</sup> The marginal cost approach does not consider substitution effects. In addition, couples without children often buy homes and automobiles larger than their present needs in anticipation of children. Comparing the

expenditures of these couples to similar couples with a child could lead to underestimates of expenditures on a child.

The per capita approach used in this study does not allow for possible diseconomies or economies of scale from having one child or three or more children. Therefore, a diseconomies or economies of scale formula was devised for use when estimating child-rearing expenditures for households of different sizes (see p. 10).

Transportation expenses resulting from work activities are not related to child-rearing expenses, so these costs were excluded from the estimated household transportation expenses. Data from a 1983-84 study by the U.S. Department of Transportation (6) were used to calculate the percentage of transportation expenditures that may be attributed to workrelated activities for households with children of different ages. Applying these percentages to 1987 Consumer Expenditure Survey data assumes these patterns have not changed since 1983-84 and do not vary by income level. Work-related transportation activities accounted for approximately 40 percent of travel for households with a child under age 6, and 35 percent for households with a child age 6-17.

#### Differences from Previous Estimates by the Family Economics Research Group

The methodology used in this study to estimate husband-wife household expenditures on a child was modified slightly from that used previously by the Family Economics Research Group in estimating these expenditures. Some modifications were made in the belief they would enable the child-rearing figures to be more user-compatible. New estimates are provided by household income level. The older study estimated expenses for households whose food expenditures corresponded to the four food plans issued by the USDA. These food plans essentially acted as proxies for household income level. By using

<sup>&</sup>lt;sup>3</sup>There are various methods to determine the equivalency between couples with children and those without children; each method yields different results.

income level directly, the need to translate each food plan into an income level is eliminated.

The previous estimates used the food plans to determine at-home food expenditures on a child. whereas present estimates use actual food expenditures reported by households, and may provide a more accurate portrayal of costs. In the earlier estimates, adult work-related transportation expenditures were not excluded from child-rearing transportation expenditures. Also, the new estimates combine expenditures on education, child care, and other miscellaneous goods and services, whereas in the previous estimates, education was a separate category and child care was included in the housing component.

Another difference results from a change in data classification procedures. The CEX no longer classifies rural areas by region. Earlier

estimates were provided for urban and rural areas in each of four regions (West, Northeast, South, and Midwest); the new estimates, however, present child-rearing costs for overall rural areas.

# Estimated Expenditures on a Child

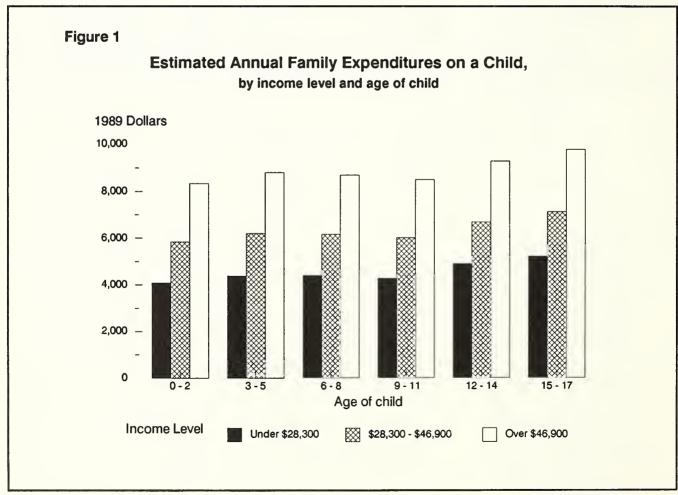
Estimates of family expenditures on the younger child in a husband-wife household with two children for the overall U.S., urban region of the country (West, Northeast, South, and Midwest), and overall rural areas are presented in tables A-F on pp. 13–18. Although the estimates are based on 1987 data, income levels of households were updated to 1989 dollars using the all-items category of the CPI-U, and expenditures were updated using the CPI for the corresponding item (i.e., the CPI's for housing, food, etc.).

Regional estimates were updated to 1989 dollars using the regional CPI's.

Given the large amount of information contained in the tables, the following subsections highlight selected child-rearing expenses by income level, budgetary component, and age of the child for the overall U.S.; and by these same factors for the various regions.

#### Income Level

For the overall U.S., annual expenditures on a child varied widely by income level of the household (see figure 1). Depending on the age of a child, costs ranged from \$4,100 to \$5,220 for households in the lowest-income group (before-tax income less than \$28,300), from \$5,850 to \$7,120 for households in the middle-income group (before-tax income between \$28,300 and \$46,900), and from \$8,330 to \$9,770 for households



in the highest-income group (before-tax income more than \$46,900).

Although households in the highest-income group spent approximately double that spent by households in the lowest-income group on a child in each age category, this difference varied by budgetary component. In general, expenses on a child for budgetary components considered to be necessities did not vary as much as those considered to be discretionary among households in the three income groups. For example, the annual food expenditure on a child age 15-17 in the highest-income group was \$1,790, compared to \$1,250 for the same age child in the lowest-income group. On the other hand, the annual expense in the education, child care, and other miscellaneous expenditure category for a child age 15-17 in the highestincome group was nearly triple that for a child of the same age in the lowest-income group.

#### **Budgetary Component**

The largest proportion of childrelated expenditures was allocated for housing. (Figure 2 illustrates expenditure shares for middleincome families.) Housing comprised, based on an average of the six age groups, 34 percent of total child-related expenses for a child in the lowest-income group, 33 percent in the middle-income group, and 36 percent in the highest-income group. For households in the lowestand middle-income groups, food was the second largest average annual expense on a child, accounting for 21 percent and 19 percent of childrelated expenses, respectively.4 Education, child care, and other miscellaneous expenditures

comprised the second largest average expense on a child for households in the highest-income group, 20 percent of child-related expenses. These expenses may seem low for a household in this highest-income group. However, households without the expense are included in calculating the mean expenditure.

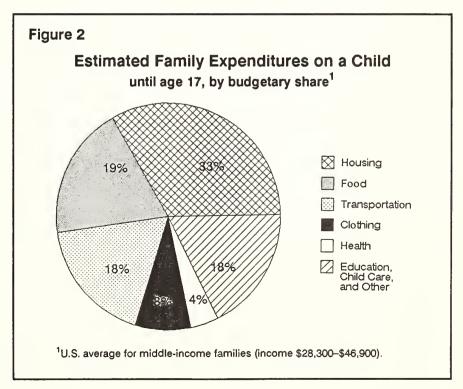
For households in the three income groups, clothing, on average, comprised 7 to 9 percent of total child-related expenses. Estimates for clothing do not include children's clothing received in the form of gifts or hand-me-downs. Child-related health care expenditures averaged 4 to 5 percent of total expenses on a child for households in all three income groups. These estimates

include only out-of-pocket expenses, and not that proportion covered by health insurance.

#### Age of Child

Family expenditures on a child were generally lower for younger children and higher for older children regardless of household income. (Figure 3, p. 8, shows this for U.S. middle-income households.) This held even though housing expenditures, the highest average childrelated expense, tended to decline over the age of the child. For those households with a mortgage, housing expenditures include interest payments, which decline over time, but not the repayment of principal, which is considered a form of savings. Also, households with a younger child likely purchased a home more recently—at a higher price – than households with older children, thereby incurring higher interest costs.

Child-related food, transportation, and clothing expenditures generally increased over the age of a child for households in all three income groups. Transportation expenditures were highest for a child age 15-17, the age when a child



<sup>&</sup>lt;sup>4</sup> To assess the reasonableness of the childrelated food expense estimates for the three income groups of households, the figures were compared to average food expenditures for a child as suggested in the four USDA food plans for 1989. Food plan designated food expenditures fell within this study's range of estimated expenditures for a child in each of the six age categories across the three income groups.

<sup>&</sup>lt;sup>5</sup> To assess the reasonableness of the childrelated health care expense estimates for the three income groups of households, the figures were compared to those from the 1980 HHS study updated to 1989 using the CPI for health care. The average estimated health care expenditure for a child age 6-17 (regardless of household income) from the HHS study fell within this study's range of such estimated expenditures across the three income groups. The average estimated health care expenditure for a child below age 6 fell slightly below (7 percent less) the minimum of this study's range of such estimated expenditures across the three income groups.

would start driving and incur auto insurance costs. Clothing expenditures for a child did decline slightly after age 12-14. This is surprising because clothing is thought to be very important to older teenagers. Since this study used the clothing expenditures for a 15-year-old as a proxy for a 16and 17-year-old, clothing expenditures may be underestimated for these older teenagers. Also, many children age 15 and over may purchase their own clothing with an allowance or earnings, but since the parent provides the expenditure information in the CEX, such clothing costs may have gone unreported.

Education, child care, and other miscellaneous expenditures on a child were highest for a preschool child (under age 6) in all three income groups. Many women with preschool children are in the labor force, so much of this expense can be attributed to child care. As the child gets older and attends school, this cost would diminish. Although

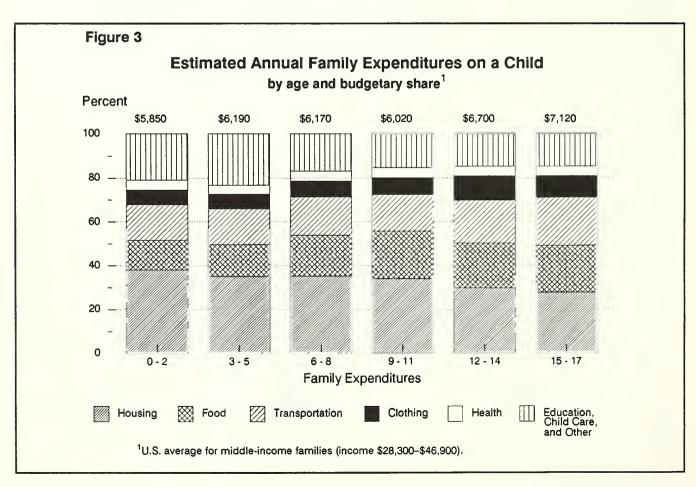
the dollar costs may seem low (\$720 to \$920 for lowest-income households, \$1,230 to \$1,450 for middle-income households, and \$1,940 to \$2,190 for highest-income households), the averages include households with and without the expense.

#### Region

Child-rearing expenses in the various regions of the country reflect patterns similar to those for the U.S. as a whole. In each region, expenses on a child generally increased by income level of the household and age of the child. For all three household income groups, overall child-rearing expenses were highest in the urban West, followed by the urban Northeast, urban South, and urban Midwest. (Figure 4 shows total child expenses over the age of a child by region for a middle-income household.) Child-rearing costs were lowest for households in rural areas regardless of income. Much of the variation in child-related

expenditures reflects the differences in housing costs among the regions. For households in the middle-income group, annual child-related housing expenses ranged from \$2,240 to \$2,470 (depending on the age of the child) for families in the urban West and from \$1,500 to \$1,730 for families in rural areas. Child-related food expenses also tended to be lower in rural areas, compared with urban areas.

Annual transportation expenditures on a child were generally highest for households in rural areas for all three income groups. For households in the middle-income group, annual transportation costs were between \$1,070 and \$1,680 for families in rural areas and between \$900 and \$1,500 for families in the urban West. The higher transportation expenses on a child in rural areas likely reflect the longer distances that may be traveled and the lack of public transportation in these areas.



#### Comparison to Previous Estimates by the Family Economics Research Group

Because household expenditure patterns have changed over time, the estimated child-rearing expenses of this study are intended to replace earlier estimates published by the Family Economics Research Group. The new and previous estimates of child-rearing expenses in 1989 dollars for a child below age 17 in the various regions of the country are presented in table 1, p. 10. Only a general comparison of the two sets of estimates is possible because the income categories do not match. Also income categories of the previous estimates, as derived from the food plans, often overlap. However, it appears the new estimates suggest husband-wife households are spending more on a child due to changes in their expenditure base than would be indicated from the previous estimates. Housing and transportation

were the budgetary components that accounted for most of this change. Families are purchasing larger homes with more amenities than in the past. In 1970 the average size of a new one-family home was 1,500 square feet, compared with 1,825 square feet in 1986. Also, the percentage of new one-family homes with two or more bathrooms increased from 48 percent in 1970 to 80 percent in 1986. Regarding transportation, in 1960 households owned, on average, one automobile. Two is the average today (12).

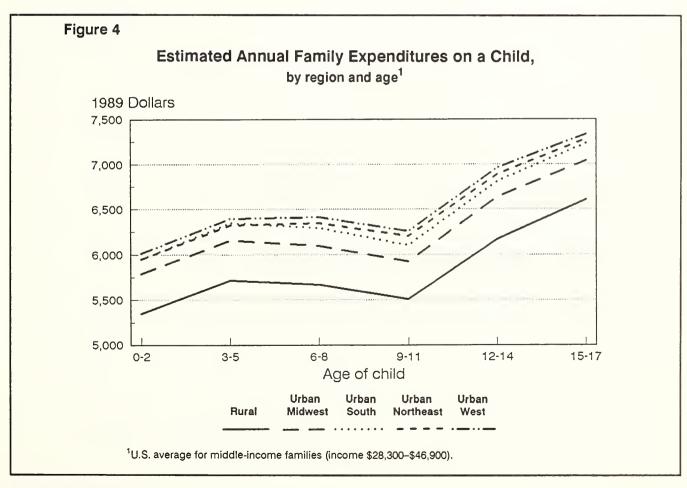
#### Adjustments in Expenditures and Estimating Future Costs

#### Adjustments for Older Children

The estimates presented thus far represent expenditures on the younger child in a husband-wife household with two children. Expenses for the older child may

be different. To determine the extent of this difference and how the expenditures may be adjusted to estimate expenses on an older child. the previous procedure was essentially repeated. Multivariate analysis was used to estimate expenditures for each budgetary component, controlling for household size (a family with two children was used as the standard) and, for this analysis, age of the older child (the same age categories as used with the vounger child). Household income and region of residence were not controlled for, so findings are applicable to all families. The sample was smaller than that for the principal analysis as only households with an older child age 17 or under were selected. The sample was weighted to reflect the U.S. population.

Children's clothing, education, and child care expenditures were divided between the two children in a household. For food and health



care, household member shares were calculated for a four-person household (husband, wife, and two children with the older child in one of the six age categories) using the USDA and HHS studies. These shares for the older child were then applied to estimated food and health care expenditures to determine expenses on the older child in each age category. Housing, transportation, and other miscellaneous expenditures were allocated among household members on a per capita basis (transportation expenses were adjusted to account for non-work related activities).

It was found that, on average, husband-wife households with two children spent 3 percent more on the older child than the younger child. So, to adjust the figures in tables A–F to reflect expenditures on an older child, 3 percent should

be added to the total annual expenses for that child's age. For example. annual child-rearing expenses for the older child age 15-17 in a twochild, middle-income family for the overall U.S. would be \$7,330 (\$7,120 x 1.03). For specific budgetary components, annual expenses on an older child (compared to a younger child) varied differently. Households spent more on an older child for clothing, and the category of education, child care, and other miscellaneous goods and services, but less on transportation; households spent approximately the same on an older and younger child for housing, food, and health care.

Therefore, annual child-related expenditures in a two-child family may be estimated by summing the expenses for the younger child and older child after adjusting for the higher expenses of the older child.

#### **Adjustments for Household Size**

In addition to adjusting for an older child, the estimates should be adjusted for diseconomies or economies of scale if a household has only one child or more than two children. To derive these adjustments, multivariate analysis was used to estimate expenditures for each budgetary component controlling for household size and age of the younger child, but not household income level and region of the country, so the results are applicable to all families.

Compared with expenditures for each child in a husband-wife, two-child family, husband-wife households with one child spent approximately 21 percent more on the single child, and those with three or more children spent approximately 22 percent less on each child.

Table 1. Comparison of new and past estimates of annual child-rearing expenses by the Family Economics Research Group, 1989 dollars

	New estin	mates	Past est	imates
Region	Income range	Child-rearing expenses	Income range <sup>1</sup>	Child-rearing expenses
Jrban:				
West	<\$28,300 28,300 - 46,900 >46,900	\$4,360 - 5,510 6,020 - 7,330 8,430 - 9,880	\$3,800 - 15,000 15,000 - 45,200 22,600 - 75,200 >45,200	\$3,140 - 4,150 4,320 - 5,710 6,075 - 8,700 7,900 - 11,310
Northeast	<28,800 28,800 - 47,700 >47,700	4,250 - 5,410 5,950 - 7,280 8,410 - 9,860	3,800 - 15,000 15,000 - 45,200 22,600 - 75,200 >45,200	2,610 - 3,610 3,530 - 4,740 5,610 - 8,250 7,290 - 10,720
South	<28,100 28,100 - 46,500 >46,500	4,220 - 5,370 5,950 - 7,230 8,400 - 9,860	3,800 - 15,000 15,000 - 45,200 22,600 - 75,200 >45,200	2,950 - 3,780 4,150 - 5,150 6,160 - 8,420 8,010 - 10,950
Midwest	<28,200 28,200 - 46,700 >46,700	4,060 - 5,180 5,790 - 7,040 8,230 - 9,670	3,800 - 15,000 15,000 - 45,200 22,600 - 75,200 >45,200	3,120 - 4,020 4,310 - 5,510 5,650 - 7,790 7,350 - 10,130
Rural <sup>2</sup>	<28,100 28,100 - 46,500 >46,500	3,640 - 4,730 5,350 - 6,610 7,770 - 9,180	3,800 - 15,000 15,000 - 45,200 22,600 - 75,200 >45,200	2,720 - 3,630 4,170 - 5,380 6,140 - 8,400 7,990 - 10,920

<sup>&</sup>lt;sup>1</sup>Income ranges for past estimates correspond to the thrifty, low-cost, moderate-cost, and liberal food plans for 4-person households updated to 1989 dollars using the CPI (3).

<sup>&</sup>lt;sup>2</sup>For the rural area, past estimates are the average for rural areas in the four regions.

Therefore, to adjust the figures in tables A-F to estimate annual overall expenditures on an only child, 21 percent should be added to the total expense for each age category. For three or more children, 22 percent should be subtracted (after adjusting for older children) from the total expense for each child's age category and these totals should be summed. For a particular budgetary component, the percentages may be more or less. Costs per child for food decrease less than for housing and transportation as family size increases. Much housing space is used in common, and car trips can serve more than one child.

As an example of adjustments for older children and number of children, total child-rearing expenses in families with one, two,

and three children are presented in table 2 for a middle-income household in the overall U.S. In the example, the age of the older child is 16 in the two-child household and the ages of the older children are 13 and 16 in the three-child household. As can be seen, greater economies of scale are observed between a twoand three-child household than a one- and two-child household. The estimated annual expense on a child age 0-2 with no siblings is \$7,080; for two children age 0-2 and 16, \$13,180; and for three children age 0-2, 13, and 16, \$15,670.

#### Estimating future costs

As previously stated, the estimates presented here represent husbandwife household expenditures on a child of a certain age in 1989. To

Table 2. Estimated annual expenditures on children by middle-income families with one, two, and three children

One-child h	ousehold	
Age of child		Annual expenditure
0 - 2 3 - 5 6 - 8 9 - 11 12 - 14 15 - 17		\$7,080 (5,850 x 1.21) 7,490 (6,190 x 1.21) 7,470 (6,170 x 1.21) 7,280 (6,020 x 1.21) 8,110 (6,700 x 1.21) 8,620 (7,120 x 1.21)
Two-child he	ousehold	
Age of younger child	Age of older child	Annual expenditure
0 - 2 3 - 5 6 - 8 9 - 11 12 - 14 15	16 16 16 16 16	\$13,180 [5,850 + (7,120 x 1.03)] 13,520 [6,190 + (7,120 x 1.03)] 13,500 [6,170 + (7,120 x 1.03)] 13,350 [6,020 + (7,120 x 1.03)] 14,030 [6,700 + (7,120 x 1.03)] 14,450 [7,120 + (7,120 x 1.03)]
Three-child	household	
Age of youngest child	Age of older children	Annual expenditure
0-2 3-5 6-8 9-11	13, 16 13, 16 13, 16 13, 16 13, 16	\$15,670 {[5,850 + ((6,700 + 7,120) x 1.03)] x 0.78} 15,930 {[6,190 + ((6,700 + 7,120) x 1.03)] x 0.78} 15,920 {[6,170 + ((6,700 + 7,120) x 1.03)] x 0.78} 15,800 {[6,020 + ((6,700 + 7,120) x 1.03)] x 0.78} 16,330 {[6,700 + ((6,700 + 7,120) x 1.03)] x 0.78}

estimate these expenses over the life of a child, future price changes need to be incorporated in the figures. To do this, a future cost formula is used such that:

 $CRC_f = CRC_p (1 + i)^n$ where: CRC<sub>f</sub> = projected future annual dollar expenditure on a child of a particular age CRCp= present (1989) annual dollar expenditure on a child of a particular age = projected annual inflation (or deflation rate) n = number of years from present until child will reach a particular age

An example of estimated future household expenditures on a child for each of the three income groups for the overall U.S. is presented in table 3, p. 12. The example assumes a child is born in 1989, reaching age 17 in the year 2006, and the average annual inflation rate over this time is 6 percent (the average annual inflation rate over the past 20 years (12)). As can be seen, total family expenses on a child through age 17 would be \$143,690, \$199,560, and \$278,780 for households in the lowest-, middle-, and highest-income groups, respectively. In 1989 dollar values, these would be \$81,810, \$114,150, and \$160,080.

Inflation rates other than 6 percent could be substituted into the formula if projections of these rates vary in the future. Also, it is somewhat unrealistic to assume that households remain in one income category as a child grows older. For most families, income rises over time. Hence, in estimating future expenses on a child, it may be more accurate to use the expenditures associated with various income levels, such as the lowest level when a child is born and the middle level when the child is a teenager.

#### Other Expenditures on Children

Expenditures on a child estimated in this study were composed of direct expenses for six major budgetary components. There are other expenses, both direct and indirect, involved in rearing a child. Because the estimates were made for a child through age 17, the cost of a college education was not included in the estimates. The College Board (2) estimates that in 1989–90 annual average tuition and fees was \$1,635 at a 4-year public college and \$7,348 at a 4-year private college; annual room and board was \$2,962 at a public college and \$3,430 at a private college. For 2-year colleges in 1989-90, annual average tuition and fees was \$852 at a public college and \$4,946 at a private college; annual room and board was \$3,140 at a private college (no estimates were given for a public 2-year college).

Indirect costs involved in the rearing of children can be substantial. In order to care for children, current earnings and future career opportunities may be diminished due to less time in the labor force for one

or both parents. Parental leisure time also is curtailed. These costs, however, are much more difficult to measure than direct expenditures. late these indirect costs (1) have found that they often can exceed the direct expenses on a child.

The estimates presented in this study are for husband-wife households; single-parent households frequently have lower incomes and different expenditures than husbandwife households. Also, some families may have unique circumstances that make the estimated child-rearing expenses greater or lesser for them, i.e., the child may have expensive medical care. It should be emphasized that the expenses estimated in this study represent direct expenditures on a child by husband-wife households. They do not represent what a family should spend on a child to guarantee some acceptable standard of living.

#### References

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Studies that have attempted to calcu-

Table 3. Future cost of rearing a child in three income groups, assuming inflation rate of 6 percent

	-			
Year	Age	Lowest income	Middle income	Highest income
1989	<1	\$4,100	\$5,850	\$8,330
1990	1	4,350	6,200	8,830
1991	2	4,610	6,570	9,360
1992	3	5,240	7,370	10,480
1993	4	5,550	7,810	11,110
1994	5	5,890	8,280	11,780
1995	6	6,240	8,750	12,310
1996	7	6,620	9,280	13,050
1997	8	7,010	9,830	13,830
1998	9	7,200	10,170	14,360
1999	10	7,630	10,780	15,220
2000	11	8,090	11,430	16,140
2001	12	9,840	13,480	18,670
2002	13	10,430	14,290	19,790
2003	14	11,060	15,150	20,980
2004	15	12,510	17,060	23,410
2005	16	13,260	18,090	24,820
2006	17	14,060	19,170	26,310
Total		\$143,690	\$199,560	\$278,780

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Table A. Estimated Annual Family Expenditures on a Child, Overall U.S.

Age of Child	Total	Housing	Food	Transpor- tation	Clothing	Health	Education, Child Care, and Other
Income: Less the	an \$28,300						
0 - 2	4,100	1,680	630	560	300	210	720
3 - 5	4,400	1,630	710	610	330	200	920
6-8	4,400	1,630	910	660	360	210	630
9 - 11	4,260	1,510	1,030	590	370	220	540
12 - 14	4,890	1,450	1,100	890	610	220	620
15 - 17	5,220	1,430	1,250	1,130	570	230	610
Total	81,810	27,990	16,890	13,320	7,620	3,870	12,120
Income: \$28,300	- \$46,900						
0 - 2	5,850	2,230	790	940	390	270	1,230
3 - 5	6,190	2,170	910	990	420	250	1,450
6-8	6,170	2,180	1,150	1,070	450	270	1,050
9 - 11	6,020	2,060	1,300	1,000	460	280	920
12 - 14	6,700	2,000	1,370	1,300	760	280	990
15 - 17	7,120	1,980	1,530	1,540	720	300	1,050
Total	114,150	37,860	21,150	20,520	9,600	4,950	20,070
Income: More th	an \$46,900						
0-2	8,330	3,340	950	1,290	480	330	1,940
3 - 5	8,800	3,280	1,150	1,340	520	320	2,190
6-8	8,680	3,290	1,380	1,450	550	330	1,680
9-11	8,500	3,170	1,550	1,380	560	350	1,490
12 - 14	9,280	3,110	1,690	1,680	900	350	1,550
15 - 17	9,770	3,090	1,790	1,920	860	370	1,740
Total	160,080	57,840	25,530	27,180	11,610	6,150	31,770

Table B. Estimated Annual Family Expenditures on a Child, Urban West

Age of Child	Total	Housing	Food	Transpor- tation	Clothing	Health	Education, Child Care, and Other
Income: Less th	an \$28,300						
0-2	4,360	1,960	690	510	290	190	720
3 - 5	4,650	1,930	770	550	320	170	910
6-8	4,690	1,930	980	590	350	180	660
9 - 11	4,570	1,810	1,110	520	360	190	580
12 - 14	5,200	1,750	1,190	830	580	190	660
15 - 17	5,510	1,720	1,330	1,070	540	210	640
Total	86,940	33,300	18,210	12,210	7,320	3,390	12,510
Income: \$28,300	) to \$46,900						
0-2	6,020	2,470	830	900	370	250	1,200
3-5	6,400	2,450	970	940	400	230	1,410
6-8	6,420	2,450	1,220	1,020	430	240	1,060
9-11	6,260	2,330	1,370	940	440	250	930
12 - 14	6,960	2,270	1,450	1,250	730	250	1,010
15 - 17	7,330	2,240	1,600	1,500	680	270	1,040
Total	118,170	42,630	22,320	19,650	9,150	4,470	19,950
Income: More th	ıan \$46,900						
0 - 2	8,430	3,530	990	1,270	450	310	1,880
3 - 5	8,910	3,510	1,200	1,300	490	290	2,120
6-8	8,820	3,510	1,430	1,410	520	300	1,650
9 - 11	8,650	3,390	1,610	1,340	530	310	1,470
12 - 14	9,460	3,330	1,760	1,650	860	320	1,540
15 - 17	9,880	3,300	1,850	1,890	820	340	1,680
Total	162,450	61,710	26,520	26,580	11,010	5,610	31,020

Table C. Estimated Annual Family Expenditures on a Child, Urban Northeast

Age of Child	Total	Housing	Food	Transpor- tation	Clothing	Health	Education, Child Care, and Other
Income: Less \$2	8,800						
0 - 2	4,250	1,920	740	470	290	190	640
3-5	4,550	1,890	830	500	320	180	830
6-8	4,590	1,890	1,040	540	350	190	580
9 - 11	4,480	1,770	1,190	470	360	190	500
12 - 14	5,110	1,700	1,260	780	590	200	580
15 - 17	5,410	1,670	1,400	1,020	550	210	560
Total	85,170	32,520	19,380	11,340	7,380	3,480	11,070
Income: \$28,800	to \$47,700						
0 - 2	5,950	2,460	890	850	370	250	1,130
3 - 5	6,330	2,430	1,020	890	410	230	1,350
6-8	6,350	2,430	1,280	960	440	250	990
9 - 11	6,210	2,310	1,450	890	450	260	850
12 - 14	6,890	2,240	1,520	1,200	740	260	930
15 - 17	7,280	2,210	1,680	1,440	700	280	970
Total	117,030	42,240	23,520	18,690	9,330	4,590	18,660
Income: More th	an \$47,700						
0-2	8,410	3,560	1,040	1,210	460	310	1,830
3 - 5	8,910	3,540	1,260	1,250	500	290	2,070
6 - 8	8,810	3,530	1,500	1,350	530	310	1,590
9 - 11	8,650	3,410	1,690	1,280	540	320	1,410
12 - 14	9,450	3,350	1,840	1,580	870	330	1,480
15 - 17	9,860	3,310	1,920	1,830	830	340	1,630
Total	162,270	62,100	27,750	25,500	11,190	5,700	30,030

Table D. Estimated Annual Family Expenditures on a Child, Urban South

Age of Child	Total	Housing	Food	Transpor- tation	Clothing	Health	Education, Child Care, and Other
Income: Less tha	an \$28,100						
0 - 2	4,220	1,700	630	590	320	230	750
3 - 5	4,560	1,680	720	630	360	220	950
6 - 8	4,530	1,680	910	680	380	230	650
9 - 11	4,390	1,560	1,040	610	400	240	540
12 - 14	5,020	1,500	1,110	920	630	240	620
15 - 17	5,370	1,470	1,250	1,160	600	260	630
Total	84,270	28,770	16,980	13,770	8,070	4,260	12,420
Income: \$28,100	to \$46,500						
0 - 2	5,950	2,210	780	980	410	300	1,270
3 - 5	6,350	2,190	910	1,020	450	280	1,500
6 - 8	6,300	2,190	1,150	1,100	480	300	1,080
9 - 11	6,110	2,070	1,300	1,030	490	300	920
12 - 14	6,810	2,010	1,370	1,330	790	310	1,000
15 - 17	7,230	1,980	1,510	1,580	750	330	1,080
Total	116,250	37,950	21,060	21,120	10,110	5,460	20,550
Income: More th	an \$46,500						
0 - 2	8,400	3,260	940	1,340	510	370	1,980
3 - 5	8,890	3,240	1,140	1,380	550	350	2,230
6-8	8,760	3,230	1,370	1,500	580	370	1,710
9 - 11	8,550	3,120	1,540	1,420	590	380	1,500
12 - 14	9,340	3,060	1,680	1,720	930	380	1,570
15 - 17	9,860	3,030	1,770	1,970	890	400	1,800
Total	161,400	56,820	25,320	27,990	12,150	6,750	32,370

Table E. Estimated Annual Family Expenditures on a Child, Urban Midwest

Age of Child	Total	Housing	Food	Transpor- tation	Clothing	Health	Education, Child Care, and Other
Income: Less that	an \$28,200						
0-2	4,060	1,630	590	530	320	200	790
3 - 5	4,370	1,610	670	570	350	180	990
6 - 8	4,340	1,610	860	610	380	190	690
9-11	4,190	1,490	980	540	390	200	590
12 - 14	4,840	1,430	1,050	840	650	200	670
15 - 17	5,180	1,400	1,190	1,090	610	220	670
Total	80,940	27,510	16,020	12,540	8,100	3,570	13,200
Income: \$28,200	to \$46,700						
0-2	5,790	2,150	740	920	410	260	1,310
3 - 5	6,160	2,120	870	950	440	240	1,540
6-8	6,100	2,120	1,090	1,030	480	250	1,130
9-11	5,930	2,010	1,240	960	490	260	970
12 - 14	6,640	1,950	1,310	1,260	810	270	1,040
15 - 17	7,040	1,910	1,450	1,510	760	280	1,130
Total	112,980	36,780	20,100	19,890	10,170	4,680	21,360
Income: more th	an \$46,700						
0 - 2	8,230	3,200	900	1,280	500	320	2,030
3-5	8,710	3,180	1,100	1,310	540	300	2,280
6-8	8,560	3,180	1,310	1,420	570	320	1,760
9 - 11	8,350	3,060	1,480	1,350	580	330	1,550
12 - 14	9,180	3,000	1,620	1,670	940	330	1,620
15 - 17	9,670	2,970	1,710	1,900	900	350	1,840
Total	158,100	55,770	24,360	26,790	12,090	5,850	33,240

Table F. Estimated Annual Family Expenditures on a Child, Rural Areas

Age of Child	Total	Housing	Food	Transpor- tation	Clothing	Health	Education, Child Care, and Other
Income: Less th	an \$28,100					- <del>-</del>	, and the second
0-2	3,640	1,220	530	680	290	230	690
3 - 5	3,950	1,200	620	720	320	210	880
6-8	3,930	1,200	790	780	350	220	590
9 - 11	3,770	1,080	910	700	360	230	490
12 - 14	4,390	1,020	980	1,010	580	230	570
15 - 17	4,730	990	1,110	1,260	550	250	570
Total	73,230	20,130	14,820	15,450	7,350	4,110	11,370
Income: \$28,100	) to \$46,500						
0-2	5,350	1,730	690	1,070	370	290	1,200
3-5	5,720	1,710	810	1,110	400	270	1,420
6 - 8	5,670	1,700	1,030	1,200	430	290	1,020
9 - 11	5,510	1,590	1,170	1,130	450	300	870
12 - 14	6,170	1,530	1,240	1,430	740	300	930
15 - 17	6,610	1,500	1,390	1,680	700	320	1,020
Total	105,090	29,280	18,990	22,860	9,270	5,310	19,380
Income: More th	nan \$46,500						
0 - 2	7,770	2,770	850	1,430	450	360	1,910
3 - 5	8,250	2,750	1,040	1,470	490	340	2,160
6-8	8,110	2,750	1,250	1,590	520	350	1,650
9 - 11	7,910	2,630	1,410	1,520	540	370	1,440
12 - 14	8,680	2,570	1,550	1,820	870	370	1,500
15 - 17	9,180	2,540	1,640	2,070	820	390	1,720
Total	149,700	48,030	23,220	29,700	11,070	6,540	31,140

# A Comparison of Households Headed by Persons 55 to 65 Years of Age: Retired and Employed

By Frankie N. Schwenk Research Leader Family Economics Research Group

Using data from the 1987 Consumer Expenditure Survey, this analysis of families with a reference person 55 to 65 years of age compared the family characteristics of retirees with those of workers. Assets, income sources, and consumer expenditures of retirees and workers were compared also. Assets of the two groups were similar. The family income of retirees came mostly from Social Security and pensions and was half the income of workers, which came mostly from wages and salaries. Family expenditures of retirees were two-thirds those of workers and differed from workers in how they were distributed. Policymakers, educators, and market researchers may use this information on family characteristics, income sources, and purchasing levels as they plan policies and programs related to early retirement.

There is a trend in the United States toward early retirement, i.e., retirement before the age of 65. Only 67 percent of men 55 to 65 years of age participated in the labor force in 1987, compared with 90 percent in 1947 (7).

Who are these men and women who retire before age 65? Do they have demographic characteristics that are different from workers of comparable ages? Do they have different levels and types of assets? What sources of income do they have? Do their spending patterns differ? This study addresses these questions by comparing information on households where the reference

person<sup>1</sup> 55 to 65 years of age is retired, and where he or she is working.

In other studies, factors that are related to early retirement have been identified. They include compulsory retirement, pension incentive offers, level of retirement benefits, Social Security benefits, tax structure, inflation rate, health status, desire to pursue leisure activities, gender, presence of dependents, and job satisfaction (1-8,10). What is not known is how retirees differ from workers with respect to family characteristics and various economic measures, specifically asset levels, income, and expenditures.

#### Data

The data for this study came from the 1987 Consumer Expenditure Survey (CEX), an ongoing survey conducted by the Bureau of Labor Statistics. A rotating sample of about 5,000 consumer units were interviewed each quarter for a total of 21,000 quarterly responses in 1987. For this analysis, consumer units with a reference person 55 to 65 years of age were selected. There were 443 consumer units with a retired head of household and 1,767 units with one who was working.

This sample was weighted to represent the U.S. population of such households. In this report, the terms "families" and "households" are used to refer to "consumer units," which is the sampling unit for the Consumer Expenditure Survey, and "head of household" is used to denote "reference person."

The intent of this study was to examine the family characteristics and resources of families in which the head of the household was retired and to compare them with those of families in which that person was working. Using the reference person as the primary subject yielded both males and females and various marital situations. Also, some role or responsibility patterns can be observed from differences in work participation of these persons and spouses (see table 1, p. 20).

The majority of reference persons were male (71 percent). Sixty percent of householders were working full time (35 or more hours per week), 8 percent were working part time, 17 percent identified themselves as retired, 9 percent as ill or disabled, 5 percent as homemakers, and 1 percent as unable to find work. Gender differences were pronounced. Female reference persons of this age were less likely than men to be employed and, of those who worked, a larger proportion worked part time. Of female householders, 16 percent identified themselves as homemakers, whereas

<sup>&</sup>lt;sup>1</sup>The reference person was identified by the family when respondents were asked "to start with the name of the person or one of the persons who owns or rents the home" (9).

<sup>&</sup>lt;sup>2</sup>A consumer unit is comprised of either: (1) all members of a particular household who are related by blood, marriage, adoption, or other legal arrangements; (2) a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent; or (3) two or more persons living together who pool their income to make joint expenditure decisions. To be considered financially independent, at least two of the three major expense categories (housing, food, and other living expenses) have to be provided by the respondent.

Table 1. Work participation of persons 55 to 65 years of age, 1987

	Refe	erence pers	son	S	pouse	
Employment status	Both male and female (100%)	Male (71%)	Female (29%)	Both male and female (100%)	Male (6%)	Female (94%)
			<u> </u>	Percent		
Not working:						
III, disabled	9	8	13	5	12	5
Homemaker	5	0	16	30	1	32
Could not find work	1	1	1	0	0	0
Retired	17	18	14	10	32	9
Working:						
Less than 35 hours/week	8	7	13	19	10	20
35 or more hours/week	60	66	43	35	45	34

none of the male reference persons did.<sup>3</sup> Reference persons who were not working because they were ill, disabled, a homemaker, or could not find work were not included in further analysis because the intent was to compare those who were retired with those who were employed.

#### Who Is Retired

Age was strongly related to retirement. The average age of the retired group was 62 years, compared with 59 years for the group who was employed. As shown in the box on p. 21, the proportion of reference persons who identified themselves as retired increased from 3 percent of those 55 years old to 51 percent of those 64 years old.

The percentage of people who are retired increased at age 63 because they become eligible for Social Security benefits at 62 years. On average, 20 percent of the 55- to 65-year-old reference persons were retired.

Marital status was related to retirement. Retirees were: married, 70 percent; widowed, 17 percent;

divorced or separated, 9 percent; and never married, 4 percent. Of persons who were working, a smaller percent were widowed but a larger percent were divorced. The marital status of employed reference persons was: married, 68 percent; widowed, 12 percent; divorced or separated, 15 percent; and never married, 5 percent.

Table 2 shows the proportion of retired household heads for each marital type by gender. Those most likely to have retired were married persons whose spouses were retired (53 percent of males and 56 percent of females), followed by single males who were widowed (32 percent) or never married (30 percent). Single females who never married were

Table 2. Marital status of retired and employed reference persons 55 to 65 years of age, 1987<sup>1</sup>

Marital status	Retired	Employed
	F	Percent
Total	20	80
Single reference person:		
Male:		
Widowed	32	68
Divorced or separated	14	86
Never married	30	70
Widowed	24	76
Divorced or separated	12	88
Never married	4	96
Married reference person:		
Male:		
Spouse retired	53	47
Spouse not retired	16	84
Female:		
Spouse retired	56	44
Spouse not retired	26	74

<sup>&</sup>lt;sup>1</sup>Reference persons who were not retired but not working because they were ill, disabled, a homemaker, or could not find work were not included.

<sup>&</sup>lt;sup>3</sup> Sixty-two percent of the reference persons had a spouse. The work participation rate of spouses, 94 percent of whom were women, was lower than that of reference persons. Over half of the spouses worked; slightly over one-third worked full time. Of the male spouses, one-third said they were retired. One-third of the female spouses identified themselves as homemakers.

Age of reference person	Percent retired
55	3
56	5
57	6
58	6
59	12
60	14
61	23
62	25
63	47
64	51

least likely to have retired (4 percent). These patterns reflect family influence on the retirement decision. Spouses retired together. Widowed persons were more likely than divorced persons to retire, perhaps because they received death benefits or inherited assets from their partner. In contrast, divorced persons may have higher per capita costs, fewer assets, and less retirement income than they had anticipated.

Dissimilar retirement patterns for never-married men and women may reflect gender differences in the labor market. Never-married women were unlikely to have an interrupted work history, so their lower participation in retirement probably can be attributed to lower wages and salaries and thus lower retirement benefits than those received by men.

Other characteristics of retired and employed persons are shown in table 3. Persons with less education were more likely to be retired. Twentynine percent of those with only an elementary school education were retired, compared with 9 percent of college graduates. Perhaps the less educated retired because they were employed in jobs such as construction that required strength and good health, or because they had less versatile job skills if they needed to find a new job.

Compared with renters or homeowners with a mortgage, a higher percentage of homeowners without a mortgage (28 percent) were retired. In fact, home ownership without a mortgage was the norm among retirees. Two-thirds of retirees, compared with two-fifths of those working, owned their home mortgage-free.

One-person households were more likely to be retired; nearly one-fourth of one-person households were retired, compared with one-fifth of two- or three-person households. The average household size for the retired group was 2.2 persons and for the working group, 2.3 persons.

Fural persons were more likely to be retired than urban persons. There may be fewer job opportunities for older people in rural areas, or perhaps they tend to move to rural areas when they retire.

White persons were more likely to be retired than black persons and

those of other races. Perhaps black persons work in occupations where there are lower wages and salaries and fewer retirement benefits

These comparisons no doubt are affected by the underlying factor of age. As previously shown, older persons (within this age group) were more likely than younger persons to be retired. To determine the relationship between retirement and various characteristics when age and other factors were held constant, a probit analysis was done. As shown in table 4, p. 22, those factors that were significant were age, spouse's employment status, education, housing tenure, household size. marital status, and sex. Region and race were not significant.

Table 3. Household characteristics of retired and employed reference persons, 55 to 65 years of age, 1987

Household characteristics	Retired	Employed
	<u>Per</u>	cent
Total	20	80
Education of reference person:		
Elementary  No high school diploma  High school diploma  Some college  College graduate  More than 4 years of college	29 20 22 16 16 9	71 80 78 84 84 91
Housing tenure:  Homeowners with mortgage	12 28 13	88 72 87
Household size:		
1 member	24 20 20 11	76 80 80 89
Region of residence:		
Urban Northeast North Central South West Rural	15 21 18 19 24	85 79 82 81 76
Race:		
White	20 18	80 82

The significant variables operated in the expected direction. Retired status was more likely as age increased. Other factors also were related in a positive direction to retirement: spouse retired, home ownership with no mortgage, widowhood, and male. Factors related to retirement in a negative direction were education and household size.

#### **Assets**

Assets studied were savings and checking accounts, U.S. savings bonds, and securities. Other asset data such as home equity are not presented because they are not on the CEX public-use tapes. Because asset information was asked only in the last interview, the asset information reported here is for about one-fourth of the sample used for the rest of this study.

The weighted average market value of financial assets of retirees was similar to those of workers, \$24,157 for retired families and \$22,029 for employed families (table 5). In a t-test comparison of unweighted numbers, there was no significant difference between the retired and working groups on any of these assets.

A difference was observed in the percentage of families holding securities. A smaller percentage of retired persons owned securities, but the average holding (among families owning) was higher (\$54,368) than the average for workers (\$32,011). Some retirees may have received a lump sum from a retirement plan that they placed in securities.

#### Sources of Income

The income before taxes of families with a retired reference person was half the income of families with one who was employed (table 6). Wages and salaries comprised 22 percent of the before-tax income of households with a retired person, 4 compared with 79 percent of family income with a working

person. Social Security and pensions accounted for 28 percent and 32 percent, respectively, of the average before-tax income of families with a retired householder. Families headed by a working person may have received some Social Security, pensions, or annuities because the reference person or another family member was eligible for such benefits. Data on Social Security and Railroad Retirement were available for the reference person; 8 percent of those who were working were receiving Social Security or Railroad Retirement benefits from their previous employment.

Average dividend and interest amounts were higher for retired than for working families. Asset holdings, however, were similar for both groups in the sample subset as indicated in table 5. Perhaps retired households achieved higher returns on their investments, because of attention to the interest-earning aspects of their savings, or investing in long-term, higher-yielding accounts.

#### **Expenditures**

Families with a retired reference person spent most of their before-tax income and a little more than their after-tax income. Families with that person employed spent 74 percent of their before-tax income or 83 percent of after-tax income (table 7, p. 24).

Total expenditures for families with a retired household head were

Table 4. Means, proportions, and probit coefficients for retired/ employed dependent variable

Variable	Means/ proportions	Coefficients
Age	60 years	.17185***
Spouse retired	.07	.60570***
Education	12 years	07893***
Housing tenure: (Renter omitted)	.15 .40 .45	08876 .23918**
Household size	2.2	09549**
Marital status: (Never married omitted) Widowed Divorced Married	.05 .13 .14 .68	.29811* .07974 .15711
Sex of reference person	.76	.17429*
Region: Urban: (Northeast omitted) Midwest South West Rural	.18 .21 .25 .17 .19	.04933 .05164 .07510 .00720
Race(1 = black)	.10	.07876

<sup>\*</sup> p < .10.

<sup>&</sup>lt;sup>4</sup>Of the families with a retired reference person, no one reported wage or salary income for that person.

<sup>\*\*</sup> p < .05.

<sup>\*\*\*</sup> p < .01.

Table 5. Financial assets of consumer units with a reference person 55 to 65 years of age, 1987<sup>1</sup>

Assets	con	n for all sumer nits	٧	rcent vith sset	Mean for consumer units with asset		
	Retired	Employed	Retired	Employed	Retired	Employed	
Market value of all savings accounts	\$12,245	\$10,112	55	56	\$21,872	\$18,099	
Market value of all checking accounts	2,736	2,499	66	69	4,142	3,640	
Market value of all U.S. savings bonds	514	499	14	18	3,679	2,843	
Market value of all securities	8,662	8,919	16	28	54,368	32,011	

<sup>&</sup>lt;sup>1</sup>The Consumer Expenditure Survey collected asset data from consumer units only on the last quarterly interview so these data are from a sample about one-quarter the size of the sample used for the rest of this study.

Note: t-tests of retired and employed, not significant.

Table 6. Sources of income of consumer units with a reference person 55 to 65 years of age, 1987

Income sources	con	n for all sumer nits	٧	cent vith ome	Mean for consumer units with income	
	Retired	Employed	Retired	Employed	Retired	Employed
ncome before tax	\$18,377	\$36,714***	100	100	\$18,377	\$36,714
ncome after tax	17,595	32,873***	100	100	17,595	32,873
Money income before taxes:						
Nages and salaries	4,066 - -	29,160*** 2,831 210	28 - -	92 15 5	14,341 - -	31,700 18,345 4,529
Social Security, private and government retirement:						
Social Security	5,072	747***	73	16	6,931	4,769
Pensions and annuities	5,871	1,655***	56	17	10,573	9,667
nterest, dividends, property income: Dividends, trusts, royalties, estates Interest on savings accounts or bonds Roomer and boarder income	952 1,508 - 177	597 960* 29 187	12 46 - 5	14 40 2 6	7,786 3,248 - 3,664	4,273 2,399 1,593 3,049
Inemployment and workers' compensation: Unemployment compensation Workers' compensation	50 222	71 68**	3 5	4 3	1,480 4,698	1,768 2,023
Public assistance, SSI, food stamps: Public assistance	- 162 32	14 30 7***	- 4 7	1 2 1	- 4,625 484	2,070 1,203 610
Alimony and child support	84	49	2	2	3,768	2,884
Other income	5	100	1	1	751	10,624

<sup>-</sup> Insufficient number of cases.

<sup>\*</sup> p < .10. \*\* p < .05.

<sup>\*\*\*</sup> p < .01.

about two-thirds those for families with that person working, \$18,337, compared with \$27,164. Per capita expenditures for persons in a household with a retired person were \$8,411, compared with \$11,628 for persons in a household with an employed reference person.

The greatest difference in expenditures by retirees and workers was for retirement, pension, and Social Security payments. Whereas families with a retired head spent \$534,<sup>5</sup> working households had payments averaging about \$3,514. Also, retired families spent about half that spent by working families for life insurance and other personal insurance. For total expenditures excluding retirement payments and insurance,

retired families spent three-fourths as much as employed families.

Other areas where retired families spent a smaller amount than working families were household operations (51 percent as much as working families), shelter (60 percent), and food away from home (68 percent). Expenditure levels for apparel, household furnishings, and transportation also were less for retired families. Expenditure levels for the two groups were most similar for utilities (84 percent as much) and food eaten at home (88 percent). However, t-tests showed significant differences between the retired and worker groups for all the expenditure categories shown in table 7 except health. Health was the only category of expenditures for which households with a retired reference person spent more than those with an employed person. This may

indicate poorer health but also may reflect higher health insurance costs for retirees who do not have access to health insurance benefits from an employer.

The distribution of expenditures among the categories (see figure) differed somewhat between the two groups, although each group spent 27 to 28 percent of their expenditures for housing. Retired families spent 24 percent for transportation, compared with 21 percent by working families; 18 percent compared with 15 percent for food; and 8 percent compared with 5 percent for health. However, these larger shares by retired families result from smaller allocations to retirement programs. Families with a retired head of household designated 3 percent of their expenditures to retirement program payments, whereas working families spent 13 percent.

Table 7. Mean expenditures of consumer units with a reference person 55 to 65 years of age, 1987

Expenditures	Retired	Employed	Retired/employed
			Percent
Income before tax	\$18,377	\$36,714***	50
Income after tax	17,595	32,873***	54
Total expenditures	18,337	27,164***	. 68
Food	3,336	4.095***	81
Food at home	2,436	2,764***	88
Food away from home	900	1,331***	68
Housing	5,035	7,418***	68
Shelter	2,394	3,974***	60
Utilities and fuel	1,653	1,966***	84
Household operations	166	326***	51
House furnishings and equipment	, 821	1,151***	71
Apparel and services	917	1,307***	70
Transportation	4,431	5,697**	78
Health care	1,497	1,336	112
Entertainment	940	1,244*	76
Life insurance and other personal insurance	266	481***	55
Retirement, pensions, Social Security payments, other	534	3,514***	15

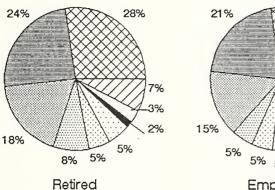
<sup>\*</sup> p < .10.

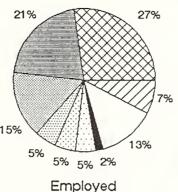
<sup>&</sup>lt;sup>5</sup>Spending for retirement programs in families with a retired reference person was probably by other members of the family who were working.

<sup>\*\*</sup> p < .05.

<sup>\*\*\*</sup> p < .01.

#### Percent of Total Expenditures of Consumer Units, Reference Person Age 55 to 65, 1987







- Transportation
- Food
- Health Care
- Apparel and Services
- Entertainment
- Life & Personal Insurance
  - Retirement, Pensions
- Other

#### **Implications**

Educators who conduct preretirement programs may wish to work with those who are planning early retirement on long-range plans to assure adequate income in later years. Even though the assets of retirees and those who continue to work may be similar, retired persons draw on their savings at an earlier age. Those who have retired are not contributing to retirement plans or earning Social Security or pension credits so their benefits may be less than if they had continued to work. If the benefits are based on the years of highest earnings, they may reflect a lower base salary than if the retiree had continued to work and experience inflationary effects on salary. Also, knowledge of Social Security and pension benefits is important to retirees since these payments constitute the primary sources of income. Information on investing may be useful if the retiree received a lump sum payment at retirement.

In addition to financial planning information, consumer information may be helpful. Early retirees may need health insurance information to help them maintain coverage during the period when employee benefits are no longer in effect and Medicare is not yet available. Consumer information on health care, food at home, utilities, and transportation may be appropriate because these items comprise a larger share of the retirees' budget.

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#### **Research Summaries**

# Changes in Family Spending Since 1901

Consumption patterns since the turn of the century reflect changes in social and economic conditions, and in the demographic composition of the U.S. population. Wars, the Great Depression, recessions, booms, and energy crises have affected the economic status of the American family. Also, the number of women in the labor force and single parents have increased over the years, as family size has declined. Data from national expenditure surveys conducted by the U.S. Department of Labor were used to examine expenditure and income patterns for families of urban workers who were wage earners and clerical or sales employees (see table). Restricting the population in this manner resulted in the longest data series for similarly defined households. These families accounted for four-fifths of the population in 1901 but less than one-third in 1986-87. However, a review of expenditure survey data for the total population from 1960-61 to 1987 shows that the trends reported here are applicable to the total population.

Food Expenditures. As household purchasing power increased and family size decreased, the percent of overall expenditures allocated to food and alcohol declined from 43 percent in 1901 to 19 percent in 1986–87. Within the food budget, however, spending for food away

from home has increased. Data from a 1909 report (the earliest such information available) show that only 3 percent of the food budget went for food away from home. This share has grown steadily over the years to 27 percent in 1986–87.

Shelter. Home ownership has increased dramatically over time, as have outlays associated with owning a home. In 1901 only 19 percent of worker families owned a home. Increasing incomes, a shorter workweek, the spread of auto ownership and highway development (and consequential access to less expensive land in the suburbs) made home ownership more feasible for more families. By 1917-19, 27 percent of worker families owned a home. Even though the depression caused many people to lose their homes, among families surveyed in 1934-36, 30 percent were homeowners. The Federal Housing Administration was created in the early 1930's to promote improvement in housing standards and to provide mortgage insurance. By 1960, 56 percent of urban worker families owned a home and the home ownership rate has remained at about this level through 1986-87. Soaring house prices and mortgage rates in the late 1970's and early 1980's slowed the rise in home ownership.

The share of expenditures allocated for shelter, which includes rent as well as payments on owned homes, has fluctuated, but the overall trend has been upward. Working families allocated 14 percent of their budget for shelter in 1901, 18 percent in 1934–36, and 20 percent in

1986–87. This increase in budget share was matched by increased size, improved conditions, and additional amenities in the homes owned by families. The median owner-occupied home in 1985 had 6 rooms, compared with 5.6 in 1970. In 1988, 79 percent of all new homes had a garage, up from 64 percent 10 years earlier; three-fourths had central airconditioning, an almost 50-percent increase; and 42 percent had more than 2.5 bathrooms, almost double the number in 1978.

Transportation. Transportation expenditures were collected as part of other goods and services in the 1901 survey and so cannot be identified separately for comparison. Other studies indicate that transportation outlays ranged between 1.7 and 2.5 percent of average income during this time. With the increase in the ownership of cars over time, transportation expenditures accounted for a larger proportion of the budget. In 1950 vehicle expenses made up 12 percent of total expenditures, compared with 25 percent in 1986-87. Data from the 1986-87 survey show that 91 percent of all worker households owned a vehicle and the average number of vehicles per household was 2.2 (average family size was 2.9 persons).

Health Care. The 1901 detailed expenditure survey found that families spent 3 percent of their total outlays for products and services in the category "sickness and death," that is, medical care and funeral expenses. This share rose to 7 percent by 1960–61 as improved economic conditions, education, and

Consumption expenditures of urban wage and clerical consumer units, 1901 to 1986-87

Item	1901	1917–19	1934–36	1950	1960—61	1972–73	1986–87
Income before taxes	\$827	\$1,505	\$1,518	-	\$6,678	\$12,771	\$27,576
Income after taxes	-	-	-	\$3,923	\$5,912	\$11,054	\$24,986
Average family size	5.3	4.9	3.6	3.4	3.2	3.2	2.9
Percent homeowner	19	27	30	44	56	57	56
Current consumption expenditures	\$791	\$1,353	\$1,463	\$3,925	\$5,431	\$8,601	\$20,226
			<u>As a p</u>	ercent of c	onsumption		
Food and alcohol	43.0	41.1	34.7	32.5	26.0	22.6	19.4
Shelter	14.0	13.9	17.7	10.6	13.7	16.4	20.2
Utilities, fuels, and public services	5.2	5.5	7.4	4.2	6.1	6.9	8.2
Household operations	-	2.7	4.0	3.9	4.2	1.2	1.4
Household furnishings and equipment	3.4	4.6	4.1	7.1	5.2	4.8	3.9
Apparel and services	13.5	17.6	10.9	11.5	10.3	8.4	5.2
Vehicle expenses	-	1.2	5.9	12.0	13.4	22.9	24.7
Public transportation	-	1.9	2.6	1.8	1.7	1.2	1.0
Health care	2.7	4.7	4.0	5.1	6.6	4.7	4.0
Entertainment and reading	2.7	3.3	3.6	5.4	4.9	5.2	5.8
Personal care	-	1.0	2.1	2.3	2.9	1.3	1.1
Education	-	0.5	0.5	0.4	1.1	1.1	1.0
Miscellaneous (sundries)	15.7	2.0	2.5	3.2	3.9	3.3	4.1

Source: Jacobs, E. and S. Shipp, 1990, How family spending has changed in the U.S., Monthly Labor Review 113(3):20-27, U.S. Department of Labor, Bureau of Labor Statistics.

the availability of insurance enabled households to purchase more health care, and then declined to 4 percent by 1986–87, as employer-provided health insurance became more prevalent. In 1987, 64 percent of individuals had employment-related health insurance, some or all of which was paid for by employers. An increasing share of the family medical budget was spent on insurance (35 percent in 1986–87, compared with 19 percent in 1950), with a decreasing share spent on services and prescription drugs.

Recreation. Increasing income and leisure time have resulted in households spending a larger percentage of their budget on entertainment and reading, doubling from 3 percent in 1917–19 to 6 percent

in 1986–87. However, most of this growth reflected an increase in entertainment expenditures. Expenditures associated with reading, as a proportion of the entertainment and reading budget, declined from 41 percent in 1901 to 10 percent in 1986–87.

Source: Jacobs, E. and S. Shipp, 1990, How family spending has changed in the U.S., Monthly Labor Review 113(3):20-27, U.S. Department of Labor, Bureau of Labor Statistics.

#### Supplementing Retirement Income Until Social Security Begins

Retirement income is derived from three primary sources: Social Security, employer-sponsored retirement plans, and workers' savings. The earliest age at which regular Social Security benefits<sup>1</sup> may begin is 62; workers who retire before reaching this age must rely, in the interim, on pensions and savings for their retirement income. Currently, a worker may receive full Social Security benefits beginning at age 65 and reduced benefits at age 62. In the future, governmental policy will encourage people to work longer and retire later. Beginning in 2003, the normal retirement age (with full benefits) will climb 1 month per year, reaching age 67 in 2027. The earliest age that Social Security retirement benefits may be received will remain at 62, although benefit reduction for early receipt will increase.

The Employee Benefits Survey, conducted by the Bureau of Labor Statistics, is an annual study of the incidence and characteristics of employee benefits. Separate data are developed for three occupational groups: professional and administrative, technical and clerical, and production and service workers. The 1988 survey of full-time employees in private industry (medium and large firms) found that 63 percent participated in defined-benefit pension plans. A defined-benefit pension plan specifies a formula for calculating benefits, and age and length of service requirements that must be met before a worker is eligible for either normal or early retirement benefits.

Full-time participants in defined-benefit pension plans by provisions for supplemental payments, 1988<sup>1</sup>

Supplemental payment status	All participants	Professional and administrative	Technical and clerical	Production and service
		cent		
Total	100	100	100	100
With supplement <sup>2</sup>	12	11	7	16
Normal retirement	8	7	5	10
Early retirement	9	7	5	12
Without supplement	88	89	93	84

<sup>&</sup>lt;sup>1</sup>Private industry, medium and large firms.

Source: Wiatrowski, W.J., 1990, Supplementing retirement until Social Security begins, Monthly Labor Review 113(2):25-29, U.S. Department of Labor, Bureau of Labor Statistics.

Normal retirement benefits are the full amount determined by the pension plan's benefit formula, without reduction due to age at retirement. Early retirement benefits are systematically reduced because they begin at an earlier age and, on average, will be received over a longer period.

Some private pension plans provide extra payments designed to compensate for delayed Social Security benefits until a retired worker becomes eligible to receive them. These supplemental pension payments help to bridge the gap, but they are available to relatively few employees. In 1988 only one in eight defined-benefit pension plan participants was in a plan that provided such supplemental payments (see table). Production and service workers were the most frequent beneficiaries (16 percent) because of the prevalence of supplementary benefits in several large collective bargaining plans. Technical and clerical workers were the least likely to receive supplemental payments (7 percent). Thirty percent of participants in plans supplementing normal benefits faced special age or length-of-service requirements, or both, to be eligible for supplemental payments.

Employers are using other methods to help retirees augment basic pension payments. Some firms offer additional employee benefit plans, most commonly savings and thrift plans, that provide retirement income. These plans encourage employees to save by establishing an account that is usually payable at retirement. An alternative is for an employer to encourage early retirement by providing "open windows" limited periods during which employees are offered special incentives to retire. The incentives may include lump-sum cash payments, modified or eliminated early-retirement reductions, more favorable benefit formulas, or - as described in this article - supplemental pension payments until Social Security begins.

<sup>&</sup>lt;sup>1</sup>Other Social Security benefits, such as those for disabled employees and survivors, may be received at earlier ages.

<sup>&</sup>lt;sup>2</sup>The total is less than the sum of the components because some participants could receive supplements to both normal and early retirement benefits.

Source: Wiatrowski, W.J., 1990, Supplementing retirement until Social Security begins, Monthly Labor Review 113(2):25-29, U.S. Department of Labor, Bureau of Labor Statistics.

#### Public Attitudes Toward Social Security

Since passage of the original Social Security Act in 1935, the program it created has been expanded greatly. Each month, approximately 15 percent of all Americans receive a benefit from the program. Each year, more than half of the population pays FICA (Federal Insurance Contributions Act) or SECA (Self-Employment Contributions Act) taxes on their earnings. The Old-Age, Survivors, and Disability Insurance program is widely regarded as one of the most popular social programs ever enacted by the U.S. Government.

Initial public acceptance of both the Old-Age Insurance (OAI) and Old-Age Assistance (OAA) programs was high and increased from a 68-percent approval rate in 1936 to a nearly unanimous 96 percent in 1944. During this first decade of the program, a substantial portion of those paying into the system did not understand that their participation would entitle them to benefits regardless of need. Gradually, what had begun as a program for the aged worker grew to include benefits for survivors, the disabled, and others.

## Program Developments and Public Responses

A major expansion designed to improve the program was contained in the Social Security Amendments of 1972. This legislation provided for a 20-percent increase in monthly cash benefits and, effective in 1975, benefits would increase automatically as prices rise. A number of other major provisions were included in the 1972 amendments, but the benefit increases, together with an economic downturn, precipitated a financial crisis in the trust funds. A higher than anticipated inflation triggered large automatic benefit increases as lower real wage levels and higher unemployment were decreasing the flow of taxes into the trust funds. By 1975 annual expenditures were exceeding annual income.

Confidence in the future of the Social Security system declined considerably in the late 1970's (see table 1). Public opinion still supported the concept that the Government should spend more to help older people; that benefits should increase when the cost of living increases; and that benefits should increase even if it means higher taxes. New legislation in 1977 contained provisions intended to reduce the projected trust fund deficits and

to eliminate the deficits beginning in 1980. The most important financial changes were an increase in future tax rates, an increase in the level of earnings subject to the payroll tax, and a revised benefit formula that modified the method of indexing benefits to take account of inflation.

The National Commission on Social Security was established to study both long-term and short-term issues involving Social Security. In 1979 the Commission funded a survev of public attitudes by Peter D. Hart Research Associates, Inc. The Hart survey determined that only 42 percent of the population were confident that Social Security would have the funds to provide their benefits. Among the nonretired only 32 percent expressed confidence. Nevertheless, 77 percent of the American public would opt to stay in the program, if given a choice. Additional opinions reported in the Hart survey include:

 Of the total, 65 percent believed (correctly) that Social Security benefits alone were not meant to be the only source of retirement income. However, more than 60 percent thought that benefits should provide for all basic needs.

Table 1. Confidence in the future of Social Security: Percent distribution of level of confidence, by selected years, 1975-88

	Selected years										
Level of confidence	1975	1976	1977	1978	1981	1982	1983	1984	1985	1986	1988
Total percent	100	100	100	100	100	100	100	100	100	100	100
Very confident	22	18	15	8	12	8	9	9	9	9	17
Somewhat confident	41	39	35	31	30	24	25	23	26	30	32
Not too confident	27	32	30	39	39	43	38	43	37	37	30
Not at all confident	10	10	20	21	18	24	26	25	24	21	15
Don't know/no answer .	0	1	0	1	1	1	2	0	3	4	6

Source: Monitoring Attitudes of the Public, American Council of Life Insurance (annual survey).

- More than 90 percent of respondents expected to receive Social Security benefits (table 2).
- The retired were somewhat more likely to list Social Security as a "major" source of retirement income 75 percent, compared with 60 percent of the nonretired.
- Asked to choose between increasing taxes or lowering benefits, 69 percent opposed lowering benefits. Also, respondents preferred higher taxes as an alternative to raising the retirement age.
- There was support for the present system of funding. Given a choice, 49 percent favored raising the payroll tax and 26 percent preferred raising the Federal income tax. When the alternative was a new national sales tax, 45 percent preferred raising the payroll tax and 31 percent preferred the sales tax.
- Only 45 percent of the public were aware of the provision to increase benefits automatically by the amount of the rise in the cost of living -4 years after the provision had become effective.
- One half of the population could not estimate the amount paid in Social Security taxes for the previous year; 59 percent did not know the tax rate.
- Almost 90 percent agreed with a statement that Social Security paid benefits to families of workers who became disabled or died.
- Social Security was cited more often as the most important source of survivors' income (39 percent) than was life insurance (28 percent).

#### Crisis in the Early 1980's

A 1981 study of attitudes toward aging and the aged, conducted by Louis Harris and Associates, Inc., found a majority of American adults had little confidence that Social Security would be able to pay them benefits when they retire. Although three-quarters of the public understood that Social Security was a payas-you-go system, only 51 percent would raise taxes to provide adequate income for older people. Reducing benefits for people already retired was opposed by 92 percent, and for those who will retire in the future, by 85 percent. Also, 70 percent of American adults did not want a reduction in cost-ofliving adjustments.

The National Commission on Social Security Reform was established in 1981 to review the financial condition of the trust funds and to make recommendations based on its findings. Those recommendations became the basis for the 1983 amendments. In the period 1982–84, only one-third of the public described their level of confidence in Social Security as "very" or "somewhat" confident.

As a result of this concern, survey responses showed that the American people were giving serious consideration to reforms that formerly had been unpopular. In 1982, at the depth of the crisis, one poll showed divided feelings - 52 percent of the population still opposed raising the retirement age but 45 percent favored such action. About threequarters of the population remained of the opinion that Social Security should provide enough for at least an adequate standard of living. Also, a majority said the Government should spend more on Social Security; there was increasing opposition to a spending cut for Social Security; three-fourths of the public chose a cut in defense spending over a cut in Social Security benefits.

Table 2. Sources of retirement income: Percent of persons expecting to receive or receiving income and percent for whom source is or will be a major source, by retirement status, 1979

	Nonre	tired	Retired		
Source of income	Expecting income	Major source	Receiving income	Major source	
		<u>Pe</u>	ercent		
Social Security	91	60	92	75	
Savings, investments, insurance, or annuity	75	39	61	18	
Private employee pension	55	35	33	18	
Part-time work after retirement	69	18	21	3	
Government employee pension	21	13	16	11	
Individual Retirement Account or Keogh plan	26	15	6	1	
Other government programs: Veterans' benefits, Food Stamp,	00	02	10	0	
Supplemental Security Income	29	23	19	9	
Children, other relatives, friends	11	1	8	3	

Source: A Nationwide Survey of Attitudes Toward Social Security, Peter D. Hart Research Associates, Inc., June 1979.

Table 3. Main source of expected income in retirement: Percent distribution of nonretired persons, by level of current earnings, 1985

Main source of expected income	Total non- retired	Less than \$20,000	\$20,000- \$29,999	\$30,000- \$49,999	\$50,000 or more
Total percent	100	100	100	100	100
Pension payments from a company, pension plan of your own or your spouse	28	18	31	36	26
Payments from Social Security	23	43	20	13	3
Money accumulated through savings or investments	20	16	17	19	37
Money from an IRA or Keogh plan	11	5	11	15	17
Other sources	13	12	15	11	11
Not sure/no answer	6	6	6	6	6

Source: A Fifty Year Report Card on the Social Security System-The Attitudes of the American Public, Yankelovich, Skelly, and White, Inc., August 1985.

#### Confidence Returns

The 1983 amendments made a number of changes, some of which were phased in gradually. Major provisions included the extension of coverage to many Federal employees and to employees of nonprofit organizations. Scheduled increases in the tax rates were accelerated, and the tax rates for the self-employed were increased. Up to 50 percent of Social Security benefits were to be included in the taxable income of higher-income beneficiaries, and the additional revenue generated would be transferred to the trust funds. Beginning early in the next century, the age of eligibility for full benefits would be increased gradually.

It soon became clear that the 1983 amendments had restored the financial soundness of the Social Security system. By 1985, 46 percent of the population expressed confidence in the program's future in a survey sponsored by the American Association of Retired Persons (AARP) and conducted by Yankelovich, Skelly, and White, Inc. The AARP survey showed that Social Security had strong public support. It was regarded as an important Government program by 96 percent of the population and a success by 92 percent, and 88 percent said it should

continue. Reasons given included: more people were living to an older age (94 percent); relief from the financial burden of having to care for aged parents (80 percent); and an essential source of income for many elderly Americans. Only 16 percent of the population believed Social Security had outlived its usefulness. In spite of the Federal budget deficit, 68 percent of the public disagreed that the country could not afford Social Securityit was lowest on the list of which programs to cut to reduce Federal spending. Most nonretired persons (73 percent) would stay in the system even if they were given the option of leaving.

For those already retired, 55 percent chose Social Security as the most important source of retirement income. Among the nonretired, only 23 percent anticipated that their main income would be from Social Security payments; 28 percent said that private company pension payments would provide their main source of income (table 3). Of the nonretired, more than 7 in 10 said Social Security should provide a retirement income sufficient for an adequate or comfortable standard of living, but only 38 percent thought that it actually did.

A 1986 AARP study found that 64 percent of the population strongly agreed that the Government was not doing enough for them and the Government should spend more for Social Security payments. Most perceived the Social Security tax to be fair, although the percentage increased with age.

Source: Sherman, S. R., 1989, Public Attitudes toward Social Security, Social Security Bulletin 52(12):2-16, U.S. Department of Health and Human Services, Social Security Administration.

#### RECENT LEGISLATION AFFECTING FAMILIES

Public Law 101-127 – revises and extends the programs established in the Temporary Child Care for the Handicapped Children and Crisis Nurseries Act of 1986. Changes references from "handicapped children" to "children with disabilities," sets forth additional requirements for State annual evaluation reports, and extends through fiscal years (FY) 1990 and 1991 the authorization of appropriations.

Enacted October 25, 1989.

Public Law 101-137 – extends the expiration date of the Defense Production Act of 1950. Provisions relevant to family economics amend the National Housing Act of 1949 to extend through FY 1990:

- (1) the authority for the provision of direct and insured loans to provide housing and related facilities for elderly persons and families in rural areas:
- (2) the current determinations for rural area classification;
- (3) the authorization of appropriations for mutual self-help housing grant and loan authority.

It also amends the Housing and Community Development Act of 1987 to extend through FY 1990 the authority of the Secretary of Housing and Urban Development (HUD) to carry out a rural rental rehabilitation demonstration program.

Enacted November 3, 1989.

Public Law 101-147 – amends the Child Nutrition Act of 1966 and the National School Lunch Act to extend certain authorities contained in such acts through FY 1995. The law:

- (1) requires that lunches served through the National School Lunch Program offer students fluid whole milk and fluid unflavored lowfat milk;
- (2) makes certain private nonprofit organizations eligible to sponsor programs under the Summer Food Service Program for Children;

- (3) directs the Secretary of Agriculture to conduct demonstration projects to test innovative approaches to remove or reduce barriers to Child Care Food Program participation by family or group day care homes primarily serving low-income children;
- (4) requires that meals served in reimbursed adult day care programs provide, on the average, at least onethird of the daily recommended dietary allowance;
- (5) directs the Secretary of Agriculture to conduct demonstration projects designed to provide food service throughout the year to homeless children under age 6 in emergency shelters and to enter into agreements with private nonprofit organizations to participate in such projects;
- (6) directs the Secretary of Agriculture and the Secretary of Health and Human Services (HHS), in consultation with the Surgeon General, to develop jointly, approve, and update as necessary, a publication on nutrition guidance for child nutrition programs, and requires school food authorities and other organizations to apply such dietary guidance in preparing meals and supplements under the School Lunch Program and the School Breakfast Program;
- (7) provides for the expansion of the School Breakfast Program;
- (8) sets forth additional activities and requirements with respect to the Special Supplemental Food Program for Women, Infants, and Children (WIC), requiring the State WIC plan to include a provision for getting benefits to eligible persons most in need, and to expand a specified portion of WIC funds for nutrition education and breastfeeding promotion and support.

Enacted November 10, 1989.

Public Law 101-189 — The National Defense Authorization Act for Fiscal Years 1990 and 1991 authorizes appropriations for military functions of the Department of Defense (DOD) and prescribes military personnel levels. The Military Child Care Act of 1989 earmarks specified funds for operating expenses for military child development centers and for other child care and child-related services of DOD. It requires:

(1) the establishment and implementation of a program to train child care employees;

(2) each child care employee to complete such training within 6 months of employment;

(3) at least one employee at each military child development center be a specialist in training and curriculum development;

(4) a program to increase the compensation of its child care employees.

Enacted November 29, 1989.

Public Law 101-239 — The Omnibus Budget Reconciliation Act of 1989, related to family economics:

- (1) directs the Secretary of Education to establish a student loan default reduction program and to widely publicize the availability of the program;
- (2) amends the Medicare Program to reduce payments for the capital-related costs of inpatient hospital services for the final three quarters of FY 1990 by 15 percent;
- (3) increases Medicare payments for the operating costs of inpatient hospital services in FY 1990 by the market basket percentage increase in such costs, and increases payments to hospitals serving a disproportionate share of low-income patients;
- (4) increases Medicare payment rates for hospice care;
- (5) provides for the gradual transition, from 1992 through 1995, to the determination of Medicare payments for physician services pursuant to

a fee schedule, which takes into account the relative value of the work, practice expenses, and malpractice risks associated with these services:

(6) amends title XIX (Medicaid) of the Social Security Act to require States to provide Medicaid coverage of children between the ages of 1 and 5, inclusive, whose family income does not exceed 133 percent of the Federal poverty guidelines;

(7) directs the Secretary of Health and Human Services to develop, publish, and make available a maternal and child health handbook;

(8) requires the Comptroller General to conduct a study regarding the loss by retirees of health benefits due to the liquidation of their employer in bankruptcy;

(9) extends, through FY 1992, Federal funding for State programs to assist children who have attained age 16 in making the transition from foster care to independent living;

(10) amends the Child Support Enforcement Amendments of 1984 to permanently extend the provision continuing a family's Medicaid eligibility if such family loses eligibility due to the collection or increased collection of child support;

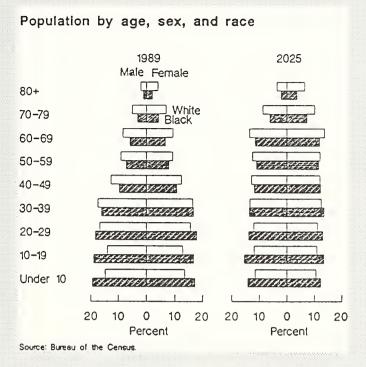
(11) amends the Foster Care and Adoption Assistance Program to cover, through FY 1992, 75 percent of the costs for the short-term training of current or prospective foster or adoptive parents and the staff of licensed child care institutions;

(12) requires that the written case plan developed for each foster care child include specified health and education records, which are to be reviewed and updated when the child is placed in foster care and to be supplied to the foster care parent or provider;

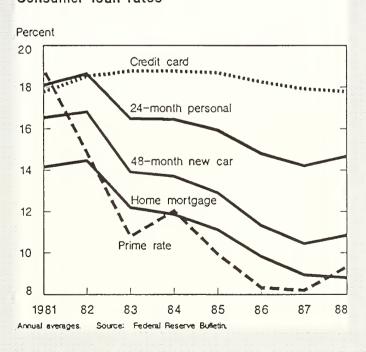
(13) provides for the conduct of demonstration projects in up to 10 communities to determine the extent to which the use of volunteer senior aides, in the provision of basic medical assistance and support to families with disabled or chronically ill children, reduces the cost of caring for such children.

Enacted December 19, 1989.

#### **New USDA Charts**



Consumer loan rates



#### **CURRENT REGIONAL RESEARCH PROJECT**

# NC-182. Family Resource Utilization as a Factor in Determining Economic Well-Being of Rural Families

Administrative advisor: Dr. S.A. Helmick University of Missouri Columbia, MO 65211

Cooperating States: University of Arizona, University of California at Riverside, University of Illinois, Purdue University (Indiana), Iowa State University, Kansas State University, Michigan State University, and University of Minnesota

**Project dates:** October 1986 to September 1991

Objectives: Determine and model: Effects of external factors, demographic characteristics, and functioning styles on family resource utilization and the effects of family resource utilization in achieving family economic well-being. Develop a basis for intervention guidelines for cooperative extension educators and others helping families to maximize family economic well-being.

Approach: Survey data were collected via a mailed questionnaire using the Dillman method. A common instrument, using structural and open-ended questions, and common procedures were developed by the NC-182 regional research committee. A stratified random sample of rural families was drawn from each cooperating State. Existing measures and scales were used or revised as needed. Implications for rural communities will be determined, based on findings that concern patterns of family resource utilization and recommendations made to families to enhance their economic well-being.

Progress: Ouestionnaires were mailed to the financial manager and another adult (usually spouse) in the household during the summer of 1988. Responses from 2,508 financial managers and 1,381 other adults were received. States collected data from two rural counties - one that was in an economic decline and another that was stable or growing as determined by changes in per capita income. Coding was completed for the data collected in common by all States in the regional project, and a regional data tape was developed by the University of Illinois. The regional data tape has been completed. The regional research committee divided into subgroups, each taking responsibility for manuscript preparation in specific topic areas. Information on family economic well-being included family's net worth, savings, perception of income adequacy, and satisfaction with financial situation.

A "basebook" was prepared and is expected to be available in 1990. Information included in this publication describes the rationale for the study, its methodology, and basic frequencies of the major variables. A workshop session was presented by researchers from Arizona, Iowa, Illinois, Michigan, Minnesota, and California at the 36th Annual Conference of the American Council on Consumer Interests in New Orleans, LA (March 1990).

#### Selected publications:

Hira, T. and K.P. Varcoe. 1989. Use of consumer debt and satisfaction with level of living among rural older adults [summary]. In: R. Walker, editor. Families in Transition: Structural Changes and Effects on Family Life, p. 205. American Home Economics Association, Alexandria, VA.

The following articles were prepared using individual State data and were presented at the 36th Annual Conference of the American Council on Consumer Interests, New Orleans, LA in March 1990:

Bauer, J.W. 1990. Rural families and their economic well-being: Procedures, methods, and conceptual model of North Central regional project NC-182. *In*: M.L. Carsky, editor. *American Council on Consumer Interests — The Proceedings*, p. 329.

Hafstrom, J.L. and V.S. Fitzsimmons. 1990. Rural communities and perceptions of Illinois residents. *In*: M.L. Carsky, editor. *American Council on Consumer Interests*—*The Proceedings*, p. 330.

Hira, T.K. 1990. Residents in economically gaining and declining rural communities and their perceptions of changes in community and impact of household's financial situation. *In*: M.L. Carsky, editor. *American Council on Consumer Interests* – *The Proceedings*, p. 334.

Keefe, D., R. Walker, C. Fratzer, and E. Avila. 1990. Sustaining/growing and declining rural areas in Michigan: Perceived impact of residents. *In*: M.L. Carsky, editor. *American Council on Consumer Interests*—*The Proceedings*, p. 333.

Varcoe, K.P. 1990. Rural California households-A profile. *In:* M.L. Carsky, editor. *American Council* on *Consumer Interests – The Proceedings*, p. 331.

#### Cost of Food at Home

Cost of food at home estimated for food plans at four cost levels, June 1990, U.S. average<sup>1</sup>

		Cost for	1 week		Cost for 1 month				
Sex-age group	Thrifty plan	Low-cost plan	Moderate- cost plan	Liberal plan	Thrifty plan	Low-cost plan	Moderate- cost plan	Liberal plan	
FAMILIES									
Family of 2:2									
20 - 50 years	47.30	59.50	73.40	90.90	204.90	258.10	317.90	393.70	
51 years and over	44.90	57.20	70.40	84.20	194.50	247.90	305.10	364.50	
Family of 4:									
Couple, 20 - 50 years and children —									
1 - 2 and 3 - 5 years	69.00	85.90	104.80	128.50	299.10	372.30	454.30	556.80	
6 - 8 and 9 - 11 years	78.90	100.90	126.20	151.70	342.20	437.30	546.70	657.30	
INDIVIDUALS <sup>3</sup>									
Child:									
1 - 2 years	12.50	15.20	17.70	21.40	54.30	65.90	76.70	92.70	
3 - 5 years	13.50	16.60	20.40	24.50	58.50	71.80	88.60	106.20	
6 - 8 years	16.40	21.90	27.50	32.00	71.20	94.90	119.00	138.50	
9 - 11 years	19.50	24.90	32.00	37.10	84.70	107.80	138.70	160.90	
Male:									
12 - 14 years	20.40	28.20	35.20	41.30	88.20	122.30	152.50	178.90	
15 - 19 years	21.20	29.20	36.20	42.00	92.00	126.50	156.90	182.10	
20 - 50 years	22.60	28.80	36.00	43.50	97.90	124.90	156.10	188.50	
51 years and over	20.60	27.40	33.70	40.30	89.20	118.70	145.90	174.60	
Female:									
12 - 19 years	20.50	24.40	29.60	35.70	88.80	105.80	128.00	154.70	
20 - 50 years	20.40	25.30	30.70	39.10	88.40	109.70	132.90	169.40	
51 years and over	20.20	24.60	30.30	36.20	87.60	106.70	131.50	156.80	

<sup>&</sup>lt;sup>1</sup>Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for the thrifty food plan were computed from quantities of foods published in *Family Economics Review* 1984(1). Estimates for the other plans were computed from quantities of foods published in *Family Economics Review* 1983(2). The costs of the food plans are estimated by updating prices paid by households surveyed in 1977–78 in USDA's Nationwide Food Consumption Survey. USDA updates these survey prices using information from the Bureau of Labor Statistics, *CPI Detailed Report*, table 3, to estimate the costs for the food plans.

<sup>&</sup>lt;sup>2</sup>10 percent added for family size adjustment. See footnote 3.

<sup>&</sup>lt;sup>3</sup>The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person—add 20 percent; 2-person—add 10 percent; 3-person—add 5 percent; 5- or 6-person—subtract 5 percent; 7- or more-person—subtract 10 percent.

#### **Consumer Prices**

Consumer Price Index for all urban consumers [1982-84 = 100]

		Unadjuste	ed indexes	
Group	June	May	April	June
	1990	1990	1990	1989
Il items	129.9	129.2	128.9	124.1
Food	132.0	131.3	131.3	125.0
Food at home	131.7	130.9	131.1	124.3
Food away from home	133.4	133.0	132.5	127.1
Housing	128.3	127.1	126.8	122.9
Shelter	139.5	138.3	138.0	132.3
Renters' costs <sup>1</sup>	145.3	144.4	144.7	138.7
Homeowners' costs <sup>1</sup>	144.4	143.1	142.5	136.5
Household insurance <sup>1</sup>	135.2	134.9	134.4	132.8
Maintenance and repairs	121.8	122.2	121.2	118.3
Maintenance and repair services	125.4	126.2	125.6	121.0
Maintenance and repair commodities	117.0	116.7	115.4	114.7
Fuel and other utilities	112.2	109.9	109.4	109.2
Fuel oil and other household fuel commodities	84.9	88.0	89.6	80.2
Gas (piped) and electricity	112.4	107.8	106.8	110.5
Household furnishings and operation	113.1	113.2	112.8	111.1
Housefurnishings	106.3	106.7	106.6	105.1
Housekeeping supplies	125.8	125.0	123.9	121.2
Housekeeping services	119.8	119.5	119.1	117.4
Apparel and upkeep	123.3	125.5	126.7	117.8
Apparel commodities	121.1	123.6	125.0	115.8
Men's and boys' apparel	119.9	121.9	121.0	115.9
Women's and girls' apparel	120.9	124.7	127.9	114.8
Infants' and toddlers' apparel	127.8	127.2	130.0	123.9
Footwear	117.3	118.5	118.6	114.0
Apparel services	136.4	136.2	134.8	130.0
Transportation	118.2	117.7	117.3	115.9
Private transportation	116.4	115.9	115.5	114.9
New vehicles	120.6	121.0	121.1	118.9
Used cars	117.6	116.9	116.2	121.3
Motor fuel	94.6	92.5	91.2	96.0
Automobile maintenance and repair	129.6	129.4	129.4	124.5
Other private transportation	141.0	140.8	140.8	135.9
Other private transportation commodities	101.8	101.8	101.9	101.9
Other private transportation services	149.7	149.3	149.4	143.2
Public transportation	141.5	140.9	140.3	129.6
Medical care	161.9	160.8	159.8	148.5
Medical care commodities	163.3	162.2	161.3	151.0
Medical care services	161.5	160.5	159.4	147.9
Professional medical services	155.8	155.1	154.1	146.1
Entertainment	131.9	131.7	131.4	126.2
Entertainment commodities	123.5	123.7	123.5	119.5
Entertainment services	142.6	142.0	141.6	135.0
Other goods and services	157.8	156.6	155.8	146.3
Personal care	131.0	130.2	130.3	124.5
Toilet goods and personal care appliances	129.2	128.3	128.3	122.2
Personal care services	132.8	132.1	132.3	127.0
Personal and educational expenses	168.0	167.7	166.6	155.8
School books and supplies	169.8	169.9	169.9	155.6
Personal and educational services	168.1	167.7	166.6	156.0

<sup>&</sup>lt;sup>1</sup>Indexes on a December 1982 = 100 base.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

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# Highlights

**Expenditures on a Child** 

Older Householders: Retired or Employed